

REMARKS

These remarks are in reply to the Office action mailed October 10, 2002. With the cancellation of Claims 49-83 and the addition of Claims 93-101, Claims 84-101 are presented herewith for consideration.¹

Applicants note with appreciation the telephonic interview held on November 6, 2002 between the Examiner and the undersigned attorney. Claims 84-92 were specifically discussed. The Examiner indicated that applicants' grounds for the patentability of Claims 84-92 set forth during the interview "seemed reasonable," but that he would need to consider those grounds more fully upon their presentation in a response to the Office Action. Applicants have set forth those grounds again hereinafter.

Rejection of Claims 49-83 Under Sections 102, 103 and 112

With respect to the rejection of Claims 49-83 set forth in paragraphs 1-15 of the Office Action, while applicants respectfully disagree with the basis for each of the 35 U.S.C. §§ 102, 103 and 112 rejections, applicants have canceled each of Claims 49-83 in order to expedite allowance of Claims 84-92. Applicants intend to file a divisional patent application including Claims 49-83 to continue prosecution of these claims.

¹ The Office Action Summary sheet indicates in paragraphs 4 and 6 that the application includes Claims 49-90. However, the body of the Office Action correctly notes that the application includes Claims 49-92.

Rejection of Claims 84-92 Under 35 U.S.C. § 112, First Paragraph

Claims 84-92 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the patent application was filed. In particular, while the application discloses the detection of a block by sensing the weight of the block on the working platform (specification at page 11, lines 9-12), the Examiner contends that such disclosure is insufficient support under Section 112, first paragraph, for the claimed recitation that the detectors are capable of detecting a downward force that is generated by the child's placement or manipulation of the one or more graspable objects on the work space.

Applicants respectfully traverse the rejection for at least two reasons. First, weight is a downward force. Because the inventors disclosed that the detectors can detect a downward force due to the weight of an object, the law is clear under Section 112, first paragraph, that the application fully supports the claimed recitation that the detectors are capable of detecting a downward force from other predictable sources, including from the placement and/or manipulation of the one or more graspable objects on the work space. This is explained in greater detail below. The second reason for traversing the rejection is the application discloses alternative embodiments independently supporting detectors capable of detecting a downward force. For example, the application discloses touch sensitive surfaces (specification at page 16, lines 3-19) which also rely upon a downward forces to generate object location information. Again, this is explained in greater detail below.

It is well settled with respect to electrical and mechanical inventions (as opposed to chemical and biotechnology inventions) that a broad claim can be enabled by disclosure of a single embodiment. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1533 (Fed. Cir.), *cert. denied*, 484 U.S. 954 (1987); *In re Smythe*, 480 F.2d 1376, 1384 (C.C.P.A. 1973).

In the Office Action and during the telephonic interview, the Examiner indicated that the specification referred only to detection of the weight of the object but the claims referred to more than just detection of the weight of the object. Applicants respectfully point out that, under the above standard, it is well established that a later added claim may be broader than the express disclosure in the specification (*Spectra-Physics*, 827 F.2d at 1533, *In re Smythe*, 480 F.2d at 1384), especially in the electrical and mechanical arts where it is understood that predictable alternatives would have been readily seen by the inventors.

Under the above standard, applicants respectfully submit the specification supports the invention recited in Claims 84-92. In particular, the application disclosure expressly sets forth that the detectors are capable of detecting a weight of an object placed on the work space. (Application at page 11, lines 9-12). However, a weight is no more than an example of a downward force:

The weight of an object on the earth is the gravitational force that the earth exerts on the object. The weight always acts downward, toward the center of the earth.

Cutnell, Johnson, *Physics 4th Ed.*, John Wiley & Sons, Inc. 1998, p. 98. Thus, the application expressly discloses that the detectors can detect a downward force due to the weight of an object on the work space.

In accordance with well-settled law, this disclosure supports claims directed to detectors capable of detecting downward forces, such as those generated upon the manipulation and/or placement of the object on the work space. Whether the object is a block as disclosed in the cited Fitzmaurice reference or a pen-based system as disclosed in the cited Ohara reference, the movement and/or placement of the object along the surface by a child will generate forces on the object having components that are parallel to the surface and normal to the surface. A skilled artisan would understand that some of these normal forces will be downward against the surface (for example when the brick or pen is being pushed across the surface).

Because the inventors disclosed that the detectors can detect a downward force due to the weight of an object, it would be clear that the inventors also understood that the sensors can detect a downward force from other predictable sources, such as from the placement and/or manipulation of objects on the surface.

In addition to and independent of the grounds set forth above, the specification provides further support for detectors that are capable of detecting a downward force due to the manipulation and/or placement of objects on a work space. At page 16, lines 3-19, the specification discloses that the work space may also comprise an image-sensitive platform including “touch sensitive surfaces, such as those used in many automated teller machines.” The operation of touch sensitive surfaces is well known. When a downward mechanical force is exerted on the surface, detectors associated with the surface detect the force and the associated processor calculates the location of the force. Thus, independent of the arguments set forth above, the disclosure in the application relating to touch sensitive surfaces provides express support for the language of Claims 84-92.

Based on the above, it is respectfully submitted that one of skill in the art would readily see that the invention recited in Claims 84-92 was in the possession of the inventors at the time of the invention. It is therefore respectfully requested that the rejection on these grounds be withdrawn.

New Claims

Applicants have added new Claims 93-101 to the application. Claims 93-101 are similar to Claims 84-92, respectively, but eliminate the limitation that the detection is achieved by “detecting a mechanical downward force generated by the child's placement or manipulation of the one or more graspable objects on the work space.”

Based on the above, reconsideration of Claims 84-92, and consideration of Claims 93-101, is respectfully requested.

Should further questions remain, the Examiner is invited to contact the undersigned attorney by telephone.

Respectfully submitted,

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